

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
1 April 2004 (01.04.2004)

PCT

(10) International Publication Number  
**WO 2004/027786 A3**

(51) International Patent Classification<sup>7</sup>: **E21B 43/10**

(21) International Application Number:  
PCT/US2003/025707

(22) International Filing Date: 18 August 2003 (18.08.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/412,196 20 September 2002 (20.09.2002) US

(71) Applicant (for all designated States except US): ENVEN-  
TURE GLOBAL TECHNOLOGY [US/US]; 16200 A  
Park Row, Houston, TX 77084 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): COSTA, Scott  
[US/US]; 2011 Willow Point, Kingwood, TX 77330 (US).

RING, Lev [US/US]; 14126 Heatherhill Place, Houston,  
TX 77077 (US). MENCHACA, Jose [US/US]; 9800  
Pagewood Lane, Number 210, Houston, TX 77042 (US).

(74) Agent: MATTINGLY, Todd; Haynes and Boone, LLP,  
901 Main Street, Suite 3100, Dallas, TX 75202-3789 (US).

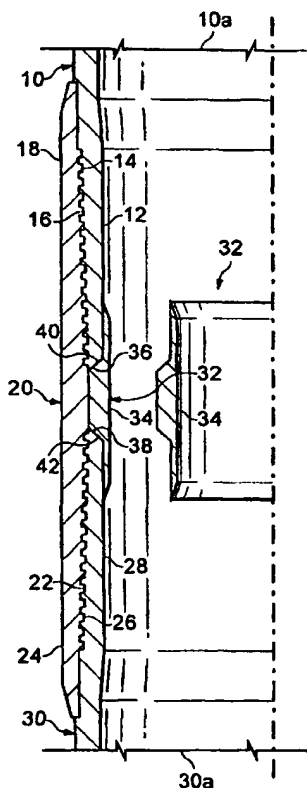
(81) Designated States (national): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,  
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,  
SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,  
VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

[Continued on next page]

(54) Title: PROTECTIVE SLEEVE FOR EXPANDABLE TUBULARS

(57) Abstract: A protective sleeve (20) for expandable tubulars (10, 30).



WO 2004/027786 A3

BEST AVAILABLE COPY



ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,  
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Declaration under Rule 4.17:**

— *of inventorship (Rule 4.17(iv)) for US only*

**Published:**

— *with international search report*

(88) Date of publication of the international search report:  
10 September 2004

**(15) Information about Correction:**

**Previous Correction:**

see PCT Gazette No. 24/2004 of 10 June 2004, Section II

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/25707

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : E21B 43/10

US CL : 166/207,380,242.6

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 166/206,207,242.1,242.6,380-382

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4,388,971 A (PETERSON) 21 June 1983 (21.06.1983), see entire document, especially Figs. 1A-2D.	1-25
A	US 6,516,880 B1 (OTTEN et al.) 11 February 2003 (11.02.2003), see entire document, especially Figs. 1-24.	1-8
A	US 6,5654,875 B1 (BULLOCK) 20 May 2003 (20.05.2003), see entire document, especially Fig. 1.	9-25



Further documents are listed in the continuation of Box C.



See patent family annex.

## \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"B" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;"

document member of the same patent family

Date of the actual completion of the international search

22 January 2004 (22.01.2004)

Date of mailing of the international search report

23 JUN 2004

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

Zakiya N. Walker *V. Hurd*  
Telephone No. (703) 308-2168

Form PCT/ISA/210 (second sheet) (July 1998)

NOT AVAILABLE COPY